

# 510(K) SUMMARY

MAY - 5 2010

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and 21 CFR §807.92(c).

The assigned 510(k) number is: K 100830.

## 1. Submitter:

Shenzhen Mindray Bio-medical Electronics Co., LTD  
Mindray Building, Keji 12th Road South, Hi-tech Industrial Park, Nanshan, Shenzhen,  
518057, P. R. China

Tel: +86 755 2658 2551  
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### Contact Person:

Zhai Pei  
Shenzhen Mindray Bio-medical Electronics Co., LTD  
Mindray Building, Keji 12th Road South, Hi-tech Industrial Park,  
Nanshan, Shenzhen, 518057, P. R. China

Date Prepared: Feb 4, 2010

## 2. Device Name: M7/M7T Diagnostic Ultrasound System

### Classification

Regulatory Class: II  
Review Category: Tier II  
21 CFR 892.1550 Ultrasonic Pulsed Doppler Imaging System (90-IYN)  
21 CFR 892.1560 Ultrasonic Pulsed Echo Imaging System (90-IYO)  
21 CFR 892.1570 Diagnostic Ultrasound Transducer (90-ITX)

## 3. Marketed Device:

The subject device is substantially equivalent in its technologies and functionality to the following devices: Mindray DC-7(K092691), Mindray M5(K083001), GE Logiq e(K072797).

## 4. Device Description:

M7/M7T Diagnostic Ultrasound System is a general purpose, portable/mobile, software controlled, ultrasound diagnostic system. Its function is to acquire and display ultrasound images in B-Mode, M-Mode, PW-Mode, CW mode, Color-Mode, Color M-Mode, Power/Dirpower Mode, TDI mode or the combined mode (i.e. B/M-Mode). This system is a Track 3 device that employs an array of probes that include linear array, convex array and phased array with a frequency range of approximately 2.5 MHz to 10.0 MHz.

## **5. Intended Use:**

The M7/M7T Diagnostic Ultrasound System is applicable for adults, pregnant women, pediatric patients and neonates. It is intended for use in gynecology, obstetric, abdominal, pediatric, small parts (breast, testes, thyroid, etc.), neonatal cephalic, transcranial, cardiac, transvaginal, transrectal, peripheral vascular, urology, orthopedic, and musculoskeletal (conventional and superficial) exams.

## **6. Safety Considerations:**

The M7/M7T Diagnostic Ultrasound System has been tested as Track 3 Device per the FDA Guidance document "Information for Manufacturers Seeking Marketing Clearance of Diagnostic Ultrasound Systems and Transducers" issued in September 2008. The acoustic output is measured and calculated per NEMA UD 2 Acoustic Output Measurement Standard for Diagnostic Ultrasound Equipment: 2004 and NEMA UD 3 Output Display Standard: 2004. The device conforms to applicable medical device safety standards, such as IEC 60601-1, IEC 60601-1-1, IEC 60601-1-2, IEC 60601-2-37, IEC 60601-1-4 and ISO 10993-1.

## **Conclusion:**

The conclusions drawn from testing of the M7/M7T Diagnostic Ultrasound System demonstrate that the device is as safe and effective as the legally marketed predicate devices.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room –WO66-G609  
Silver Spring, MD 20993-0002

Shenzhen Mindray Bio-Medical Electronics Co., Ltd.  
% Mr. Robert Mosenkis  
President  
CITECH  
5200 Butler Pike  
Plymouth Meeting, PA 19462-1298

MAY - 5 2010

Re: K100830  
Trade/Device Name: M7/M7T Diagnostic Ultrasound System  
Regulation Number: 21 CFR 892.1550  
Regulation Name: Ultrasonic pulsed doppler imaging system  
Regulatory Class: II  
Product Code: IYN, IYO, and ITX  
Dated: April 21, 2010  
Received: April 22, 2010

Dear Mr. Mosenkis:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

This determination of substantial equivalence applies to the following transducers intended for use with the M7/M7T Diagnostic Ultrasound System, as described in your premarket notification:

Transducer Model Number

C5-2s  
V10-4s, V10-4Bs  
7L4s, L14-6s

P4-2s  
P7-3s  
4CD4s

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus permits your device to proceed to market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

If you have any questions regarding the content of this letter, please contact Ewa Czerska at (301) 796-6541.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Donald St. Pierre" followed by a stylized flourish or initials in parentheses.

Donald St. Pierre  
Acting Director  
Division of Radiological Devices  
Office of *In Vitro* Diagnostic Device  
Evaluation and Safety  
Center for Devices and Radiological Health

Enclosure(s)

## Indications for Use

510(k) Number (if known):

Device Name: M7/M7T Diagnostic Ultrasound System

Indications For Use:

The M7/M7T Diagnostic Ultrasound System is applicable for adults, pregnant women, pediatric patients and neonates. It is intended for use in gynecology, obstetric, abdominal, pediatric, small parts (breast, testes, thyroid, etc.), neonatal cephalic, transcranial, cardiac, transvaginal, transrectal, peripheral vascular, urology, orthopedic, and musculoskeletal (conventional and superficial) exams.

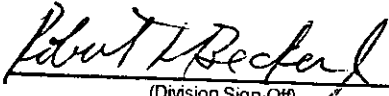
Prescription Use   X    
(Part 21 CFR 801 Subpart D)

AND/OR Over-The-Counter Use         
(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of In Vitro Diagnostic Devices (OIVD)

  
(Division Sign-Off)  
Division of Radiological Devices  
Office of In Vitro Diagnostic Device Evaluation and Safety

Page 1 of   1  

510K   K100830

## Diagnostic Ultrasound Indications for Use Form

System: M7/M7T Diagnostic Ultrasound System  
 Transducer: N/A  
 Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	N	N	N		N	N	N	Note 1,2,3,4,6,7
	Abdominal	N	N	N	N	N	N	N	Note 1,2,3,4,5,6,7
	Intraoperative (specify)*								
	Intraoperative (Neuro)								
	Laparoscopic								
	Pediatric	N	N	N	N	N	N	N	Note 1,2,3,4,5,6,7
	Small organ(specify)**	N	N	N		N	N	N	Note 1,2,4,6,7
	Neonatal Cephalic	N	N	N	N	N	N	N	Note 1,2,4,5,6,7
	Adult Cephalic	N	N	N	N	N	N	N	Note 1,2,5,6,7
	Trans-rectal	N	N	N		N	N	N	Note 1,2,4,6,7
	Trans-vaginal	N	N	N		N	N	N	Note 1, 2,4,6,7
	Trans-urethral								
	Trans-esoph (non-Card.)								
	Musculo-skeletal Conventional	N	N	N	N	N	N	N	Note 1,2,4,5,6,7
	Musculo-skeletal Superficial	N	N	N		N	N	N	Note 1,2,4,6,7
	Intravascular								
Cardiac	Cardiac Adult	N	N	N	N	N	N	N	Note 1,2,5,6,7
	Cardiac Pediatric	N	N	N	N	N	N	N	Note 1,2,5,6,7
	Intravascular (Cardiac)								
	Trans-esoph.(Cardiac)								
	Intra-Cardiac								
Peripheral Vascular	Peripheral Vascular	N	N	N		N	N	N	Note 1, 2, 4,6,7
	Other (specify)***								

N=new indication; P=previously cleared by FDA; E=added under Appendix E

Additional comments: Combined modes: B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes, etc.

Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.

Note 2: Smart3D

Note 3:4D(Real-time 3D)

Note 4: iScape

Note5: TDI

Note6: Color M

Note7: Biopsy Guidance

Prescription USE (Per 21 CFR 801.109)

  
 (Division Sign-Off)

Division of Radiological Devices  
 Office of In Vitro Diagnostic Device Evaluation and Safety

510K

K100830

## Diagnostic Ultrasound Indications for Use Form

System: M7/M7T Diagnostic Ultrasound System  
 Transducer: C5-2s  
 Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	N	N	N		N	N	N	Note 1, 2, 4, 6, 7
	Abdominal	N	N	N		N	N	N	Note 1, 2, 4, 6, 7
	Intraoperative (specify)*								
	Intraoperative (Neuro)								
	Laparoscopic								
	Pediatric	N	N	N		N	N	N	Note 1, 2, 4, 6, 7
	Small organ(specify)**								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph.(non-Card.)								
	Musculo-skeletal Conventional								
	Musculo-skeletal Superficial								
	Intravascular								
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph.(Cardiac)								
	Intra-Cardiac								
Peripheral Vascular	Peripheral Vascular	N	N	N		N	N	N	Note 1, 2, 4, 6, 7
	Other (specify)								

N=new indication; P=previously cleared by FDA; E=added under Appendix E

Additional comments: Combined modes: B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes, etc.

Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.

Note 2: Smart3D

Note 3: 4D(Real-time 3D)

Note 4: iScape

Note 5: TDI

Note 6: Color M

Note 7: Biopsy Guidance

Prescription USE (Per 21 CFR 801.109)

  
 (Division Sign-Off)

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 Office of In Vitro Diagnostic Device Evaluation and Safety

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K100830

## Diagnostic Ultrasound Indications for Use Form

System: M7/M7T Diagnostic Ultrasound System  
 Transducer: V10-4s  
 Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	N	N	N		N	N	N	Note 1, 2, 4, 6, 7
	Abdominal								
	Intraoperative (specify)*								
	Intraoperative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small organ(specify)**								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal	N	N	N		N	N	N	Note 1, 2, 4, 6, 7
	Trans-vaginal	N	N	N		N	N	N	Note 1, 2, 4, 6, 7
	Trans-urethral								
	Trans-esoph.(non-Card.)								
	Musculo-skeletal Conventional								
	Musculo-skeletal Superficial								
	Intravascular								
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph.(Cardiac)								
	Intra-Cardiac								
Peripheral Vascular	Peripheral Vascular								
	Other (specify)***								

N=new indication; P=previously cleared by FDA; E=added under Appendix E

Additional comments: Combined modes: B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes, etc.

\*\*Small organ-breast, thyroid, testes, etc.

Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.

Note 2: Smart3D

Note 3: 4D(Real-time 3D)

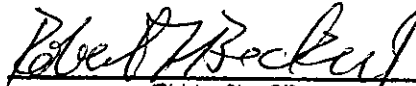
Note 4: iScape

Note 5: TDI

Note 6: Color M

Note 7: Biopsy Guidance

Prescription USE (Per 21 CFR 801.109)

  
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 Office of In Vitro Diagnostic Device Evaluation and Safety  
 510K K100830



## Diagnostic Ultrasound Indications for Use Form

System:

M7/M7T Diagnostic Ultrasound System

Transducer:

V10-4Bs

Intended Use:

Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	N	N	N		N	N	N	Note 1, 2, 4,6,7
	Abdominal								
	Intraoperative (specify)*								
	Intraoperative (Neuro)								
	Laparoscopic								
	Pediatric								
	Small organ(specify)**								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal	N	N	N		N	N	N	Note 1, 2, 4,6,7
	Trans-vaginal	N	N	N		N	N	N	Note 1, 2, 4,6,7
	Trans-urethral								
	Trans-esoph.(non-Card.)								
	Musculo-skeletal Conventional								
	Musculo-skeletal Superficial								
	Intravascular								
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph.(Cardiac)								
	Intra-Cardiac								
Peripheral Vascular	Peripheral Vascular								
	Other (specify)***								

N=new indication; P=previously cleared by FDA; E=added under Appendix E

Additional comments: Combined modes: B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes, etc.

\*\*Small organ-breast, thyroid, testes, etc.

Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.

Note 2: Smart3D

Note 3: 4D(Real-time 3D)

Note 4: iScape

Note5: TDI

Note6: Color M

Note7: Biopsy Guidance

Prescription USE (Per 21 CFR 801.109)

*Robert Becker*  
 (Division Sign-Off)  
 Division of Radiological Devices  
 Office of In Vitro Diagnostic Device Evaluation and Safety  
 510K K100830

## Diagnostic Ultrasound Indications for Use Form

System: M7/M7T Diagnostic Ultrasound System  
 Transducer: 7L4s  
 Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	P	P	P		P	P	P	Note 1,2, 4,6,7
	Intraoperative (specify)*								
	Intraoperative (Neuro)								
	Laparoscopic								
	Pediatric	P	P	P		P	P	P	Note 1,2, 4,6,7
	Small organ(specify)**	P	P	P		P	P	P	Note 1,2, 4,6,7
	Neonatal Cephalic	P	P	P		P	P	P	Note 1,2, 4,6,7
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph.(non-Card.)								
	Musculo-skeletal Conventional	P	P	P		P	P	P	Note 1,2, 4,6,7
	Musculo-skeletal Superficial	P	P	P		P	P	P	Note 1,2, 4,6,7
	Intravascular								
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph.(Cardiac)								
	Intra-Cardiac								
Peripheral Vascular	Peripheral Vascular	P	P	P		P	P	P	Note 1,2, 4,6,7
	Other (specify)***								

N=new indication; P=previously cleared by FDA; E=added under Appendix E

Additional comments: Combined modes: B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes, etc.

Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.

Note 2: Smart3D

Note 3: 4D(Real-time 3D)


Note 4: iScape

Note5: TDI

Note6: Color M

Note7: Biopsy Guidance

Prescription USE (Per 21 CFR 801.109)

  
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 Division of Radiological Devices  
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K100830

## Diagnostic Ultrasound Indications for Use Form

System: M7/M7T Diagnostic Ultrasound System  
 Transducer: L14-6s  
 Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PWD	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal								
	Intraoperative (specify)*								
	Intraoperative (Neuro)								
	Laparoscopic								
	Pediatric	N	N	N		N	N	N	Note 1,2,4,6,7
	Small organ(specify)**	N	N	N		N	N	N	Note 1,2,4,6,7
	Neonatal Cephalic	N	N	N		N	N	N	Note 1,2,4,6,7
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph (non-Card.)								
	Musculo-skeletal Conventional	N	N	N		N	N	N	Note 1,2,4,6,7
	Musculo-skeletal Superficial	N	N	N		N	N	N	Note 1,2,4,6,7
	Intravascular								
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph.(Cardiac)								
	Intra-Cardiac								
Peripheral Vascular	Peripheral Vascular	N	N	N		N	N	N	Note 1,2,4,6,7
	Other (specify)***								

N=new indication; P=previously cleared by FDA; E=added under Appendix E

Additional comments: Combined modes: B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes, etc.

Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.

Note 2: Smart3D

Note 3: 4D(Real-time 3D)

Note 4: iScape

Note5: TDI

Note6: Color M

Note7: Biopsy Guidance

Prescription USE (Per 21 CFR 801.109)

*Robert A. Becker*  
 (Division Sign-Off)  
 Division of Radiological Devices  
 Office of In Vitro Diagnostic Device Evaluation and Safety  
 510K K100830

## Diagnostic Ultrasound Indications for Use Form

System: M7/M7T Diagnostic Ultrasound System

Transducer: P4-2s

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PW D	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	N	N	N	N	N	N	N	Note 1, 2,5,6,7
	Intraoperative (specify)*								
	Intraoperative (Neuro)								
	Laparoscopic								
	Pediatric	N	N	N	N	N	N	N	Note 1, 2,5,6,7
	Small organ(specify)**								
	Neonatal Cephalic	N	N	N	N	N	N	N	Note 1, 2,5,6,7
	Adult Cephalic	N	N	N	N	N	N	N	Note 1, 2,5,6,7
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph.(non-Card.)								
	Musculo-skeletal Conventional								
	Musculo-skeletal Superficial								
	Intravascular								
Cardiac	Cardiac Adult	N	N	N	N	N	N	N	Note 1, 2,5,6,7
	Cardiac Pediatric	N	N	N	N	N	N	N	Note 1, 2,5,6,7
	Intravascular (Cardiac)								
	Trans-esoph.(Cardiac)								
	Intra-Cardiac								
Peripheral Vascular	Peripheral Vascular								
	Other (specify)***								

N=new indication; P=previously cleared by FDA; E=added under Appendix E

Additional comments: Combined modes: B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes, etc.

Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.

Note 2: Smart3D

Note 3: 4D(Real-time 3D)

Note 4: iScape

Note5: TDI

Note6: Color M

Note7: Biopsy Guidance

Prescription USE (Per 21 CFR 801.109)

*Robert J. Becker*  
 (Division Sign-Off)  
 Division of Radiological Devices  
 Office of In Vitro Diagnostic Device Evaluation and Safety

510K

K160830

## Diagnostic Ultrasound Indications for Use Form

System: M7/M7T Diagnostic Ultrasound System  
 Transducer: P7-3s  
 Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PW D	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal								
	Abdominal	N	N	N	N	N	N	N	Note 1, 2,5,6
	Intraoperative (specify)*								
	Intraoperative (Neuro)								
	Laparoscopic								
	Pediatric	N	N	N	N	N	N	N	Note 1, 2,5,6
	Small organ(specify)**								
	Neonatal Cephalic	N	N	N	N	N	N	N	Note 1, 2,5,6
	Adult Cephalic	N	N	N	N	N	N	N	Note 1, 2,5,6
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph.(non-Card.)								
	Musculo-skeletal Conventional	N	N	N	N	N	N	N	Note 1, 2,5,6
	Musculo-skeletal Superficial								
	Intravascular								
Cardiac	Cardiac Adult	N	N	N	N	N	N	N	Note 1, 2,5,6
	Cardiac Pediatric	N	N	N	N	N	N	N	Note 1, 2,5,6
	Intravascular (Cardiac)								
	Trans-esoph.(Cardiac)								
	Intra-Cardiac								
Peripheral Vascular	Peripheral Vascular								
	Other (specify)***								

N=new indication; P=previously cleared by FDA; E=added under Appendix E

Additional comments: Combined modes: B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes, etc.

Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.

Note 2: Smart3D

Note 3: 4D(Real-time 3D)

Note 4: iScape

Note5: TDI

Note6: Color M

Note7: Biopsy Guidance

Prescription USE (Per 21 CFR 801.109)

  
 (Division Sign-Off)

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K100830

## Diagnostic Ultrasound Indications for Use Form

System: M7/M7T Diagnostic Ultrasound System  
 Transducer: 4CD4s  
 Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application		Mode of Operation							
General (Track 1 Only)	Specific (Track 1 & 3)	B	M	PW D	CWD	Color Doppler	Amplitude Doppler	Combined (specify)	Other (specify)
Ophthalmic	Ophthalmic								
Fetal Imaging & Other	Fetal	N	N	N		N	N	N	Note 1, 2, 3, 4, 6
	Abdominal	N	N	N		N	N	N	Note 1, 2, 3, 4, 6
	Intraoperative (specify)*								
	Intraoperative (Neuro)								
	Laparoscopic								
	Pediatric	N	N	N		N	N	N	Note 1, 2, 3, 4, 6
	Small organ(specify)**								
	Neonatal Cephalic								
	Adult Cephalic								
	Trans-rectal								
	Trans-vaginal								
	Trans-urethral								
	Trans-esoph.(non-Card.)								
	Musculo-skeletal Conventional								
	Musculo-skeletal Superficial								
	Intravascular								
Cardiac	Cardiac Adult								
	Cardiac Pediatric								
	Intravascular (Cardiac)								
	Trans-esoph.(Cardiac)								
	Intra-Cardiac								
Peripheral Vascular	Peripheral Vascular								
	Other (specify)***								

N=new indication; P=previously cleared by FDA; E=added under Appendix E

Additional comments: Combined modes: B+M, PW+B, Color + B, Power + B, PW +Color+ B, Power + PW +B.

\*Intraoperative includes abdominal, thoracic, and vascular etc.

\*\*Small organ-breast, thyroid, testes, etc.

Note 1: Tissue Harmonic Imaging. The feature does not use contrast agents.

Note 2: Smart3D

Note 3: 4D(Real-time 3D)


Note 4: iScape

Note 5: TDI

Note 6: Color M

Note 7: Biopsy Guidance

Prescription USE (Per 21 CFR 801.109)

  
 (Division Sign-Off)  
 Division of Radiological Devices  
 Office of In Vitro Diagnostic Device Evaluation and Safety